

ay



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,062	05/02/2005	William Basil Harrold	040857-283537	4269
826	7590	09/01/2005	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			APPIAH, CHARLES NANA	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/510,062

Applicant(s)

HARROLD, WILLIAM BASIL

Examiner

Charles N. Appiah

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/2/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 10 is objected to because of the following informalities: Claim 10 being dependent on "any of claims 1-5" causes the limitation "the recognition algorithm" to be without antecedent basis in the respective claims. Appropriate correction is required.
2. Claims 11-13 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim, e.g., claim 11 cannot depend on claim 10 since claim 10 depends on "any one of claims 1 to 6". See MPEP § 608.01(n). Accordingly, the claims 11-13 have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Muramatsu et al. (5,842,139).

Regarding claim 1, Muramatsu discloses a radio communication terminal (see Fig. 5), comprising a radio module (303) for processing radio signal, a processor for processing digital signals associated with the radio signals (DSP of digital cellular phone, see col. 6, lines 5-16), an audio generator adapted to generate an audio input signal to the processor in response to sound in the vicinity of the terminal (feature of

sound measuring instrument measuring sound level of input signal such as voice inputted from microphone (see col. 3, lines 49-60), and an inherent power supply and inherent power controller to control connection of the power supply to the radio module (it is inherent that the digital cellular phone includes a power supply and power controller). Muramatsu inherently teaches the phone having a standby mode in which the radio module and processor are energized periodically to detect a radio channel (it is an inherent feature of the digital cellular phone to have a standby or sleep mode during which most circuits are powered down when the phone is not being used to receive or make a call). Muramatsu inherently teaches the power controller energizing the audio generator to generate an audio input to the processor only during a radio channel, with the processor being adapted to respond to a predetermined sound by activating the terminal for communication (feature of controller judging an input signal to satisfy the preset threshold conditions and reading out a telephone number, causing an off-hook state and sending out number information from the antenna after either a parametric or non-parametric analysis of the input sound signal, see col. 3, line 49 to col. 4, line 30 and col. 6, lines 17-45).

Regarding claim 2, Muramatsu further discloses s the processor processes digital signals from the radio module during one or more successive data bursts of the radio channel (feature of cellular terminal sensing the voice of the nursed person and automatically originating a call to a cellular terminal, see col. 6, lines 36-42).

Regarding claim 4, Muramatsu's teaching of a preset voice signal such as a cry of an infant, a voice generated by a sick person, or a loud sound (see col. 4, line 66 to col. 5, line 2) meets the predetermined sound comprises a narrow-band sound.

Regarding claim 6, Muramatsu further teaches the processor incorporates a sound recognition algorithm, which distinguishes the predetermined sound from speech in the audio input signal (analyzer effecting non-parametric or a parametric analysis of the input signal with the non-parametric analysis being able to accommodate various signals, see col. 3, line 49 to col. 4, line 63).

Regarding claim 7, Muramatsu further discloses the recognition algorithm is adapted to detect total energy in the audio input signal above a predetermined threshold (sound level measuring instrument conducting processing by calculating signal power every fixed interval and comparing the output with the output of the threshold generator, see col. 3, lines 49-59).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Muramatsu et al** as applied to claim 2 above, and further in view of **Takahashi et al. (6,108,543)**.

Regarding claim 3, Muramatsu fails to explicitly teach wherein the radio channel is a paging channel.

The use of a paging channel for establishing radio communication is very well known in the art as taught by Takahashi. Takahashi discloses a system in which a mobile terminal communicates with a base station over a paging channel (see abstract). According to Takahashi, the communication apparatus receive information through the paging channel having the strongest electric field intensity (see col. 5, line 65 to col. 6, line 15 and col. 6, line 62 to col. 7, line 21).

It would therefore have been obvious to one of ordinary skill in the art to incorporate Takahashi's teaching of using paging channels for communication into Muramatsu's system in order to ensure high quality communications by selecting the channel with the strongest signal intensity.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over

**Muramatsu et al.**

Regarding claim 5, Muramatsu teaches wherein the predetermined sound comprises a voice signal such as a cry of an infant, a voice generated by a sick person or a loud sound (see col. 4, line 66 to col. 5, line 2), but fails to explicitly teach that the predetermined sound comprises a whistle. However, since Muramatsu teaches the sound could be the cry of an infant, a voice signal of a signal person or a loud sound, it would have been obvious to one of ordinary skill in the art to ensure that any sound including a whistle can be used to initiate the automatic calling feature in order to

summon help for people in distress situations who are not in a position to speak coherently.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Muramatsu et al** as applied to claim 7 above, and further in view of **Sakamoto (JP 08-298698)**.

Regarding claim 8, Muramatsu fails to explicitly teach wherein the recognition algorithm is adapted to detect multiple energy peaks at different frequencies in the audio input signal, and to compare the energy on these peaks.

Sakamoto discloses an environmental sound analyzer, which includes a sound detection algorithm and is capable of extracting noise from voice sounds using a frequency distribution function for all frequency based upon the average power level of each frame and includes a peak detecting means for detecting a peak power based on the frequency distribution function (see abstract), including being able to distinguish between noise and voice signals by peak comparison (see "DETAILED DESCRIPTION", [0029-0035]).

It would therefore have been obvious to one of ordinary skill in the art to combine Sakamoto's peak detection means with Muramatsu's system in order to accurately distinguish between various sounds.

10. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Muramatsu et al** and further in view of Well-Known Prior Art (**Official Notice**).

Regarding claims 9 and 10 Muramatsu fails to teach a pre-shaping filter to filter out low frequency components from the audio signal input before it is processed by the

processor and the recognition algorithm is adapted to detect low variance of the phase increment per sample in an audio block for the predetermined sound compared with speech.

Examiner maintains that the concept of using a pre-shaping filtering as well as detecting low variance of a phase increment per sample in an audio block for a predetermined sound in audio processing is very well known in the art and as such Official Notice is taken that it would have been obvious to one of ordinary skill in the art to include pre-shaping filtering as well as low variance of phase increment per sample in Muramatsu's system in order to accurately monitor sound levels and spectral distribution of an inputted sound for automatic call origination.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sone (6,088,576) discloses a selective calling receiver having a battery saving mode of operation.

Shimada (5,222,121) discloses a voice-recognition dialing unit for a vehicle-mounted telephone.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Appiah whose telephone number is 571 272-7904. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571 272-7905. The fax phone




Art Unit: 2686

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA



**CHARLES APPIAH**  
**PRIMARY EXAMINER**